

### General

LURANYL® PPE/PA-blends can be generally processed using suitable techniques convenient for thermoplastic resins. In particular they can be easily moulded on usual injection moulding machines.

Due to the balanced processing properties and their excellent thermal stability, injection moulded parts with superb surface finish and gloss can be easily produced from all LURANYL® PPE/PA-blends. Basically all common types of gates can be used (VDI 2006).

### Storage

LURANYL® PPE/PA-blends should be stored dry in closed rooms and protected from direct sunlight. If the packaging is stored on the outside, this can damage the physical and optical properties of LURANYL® PPE/PA-blends.

### Drying

LURANYL® PPE/PA-blends leave the production facility with a residual moisture value of < 0.1 %. This value is controlled using the moisture measuring device (Aquatrac).

Under adverse transport and storage conditions all LURANYL® PPE/PA-blends can absorb moisture so that surface defects such as streaks can appear. Before processing we strongly recommend to pre-dry LURANYL® PPE/PA-blends for 2 – 4 hours at a temperature of 110 °C ( $\pm 10$  °C) in a dry air dryer. These dry the materials with high reliability even at high outside humidity.

We recommend to dry the material up to a moisture content < 0.05 %.

To exclude temperature-dependent color changes in case of bright colors it is recommended to limit the pre-drying time up to 2 h.

The above processing guidelines should advise without commitment. The statements given are based on our experience and are correct to the best of the knowledge at the time of printing, but the actual applications and processes are beyond our sphere of influence. No liability should be assumed as a result of this information.

### Processing

The processing parameters should be selected with regard to the injection molding machine and the tool geometry. The parameters listed below serve to support the specified injection molding properties. Of particular attention should be paid to the melt temperature using hot runner tools.

LURANYL® PPE/PA-Blends	Standard	Filled / Reinforced
Drying temperature	110 ± 10 °C	110 ± 10 °C
Drying time	2 – 4 h	2 – 4 h
Barrel temperature	270 – 300 °C	285 – 310 °C
Tool temperature	80 – 120 °C	90 – 120 °C
Maximum residence time	< 10 min	< 10 min
Injection speed	medium	medium
Peripheral screw speed	0.2 m/s to max. 0.3 m/s	0.2 m/s to max. 0.3 m/s
Injection pressure*	medium – high	medium – high

\* The injection pressure should be selected depending on the injection speed.

The above mentioned processing parameters are only approximants and depend on the tool geometry and the machine used.

The processing temperatures of glasfiber reinforced grades should be chosen in the upper range because of their lower flowability.

### Recycling

Previous tests before recycling of rejected parts, gates etc. from LURANYL® PPE/PA-blends are recommended. It should be considered that the regrind is free of dust. Due to reprocessing conditions the small dust particles from grinding process can burn, thus can influence the mechanical and optical values and lead to "black specs".

**For special requirements in the finished parts, only original material should be used.**

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